Quantum Internet via Sovereign Entangled Nodes

Author: Tyrone Farmer

Date: February 20, 2026

Version: 1.0

Copyright © 2026 Tyrone Farmer. All rights reserved.

This document contains proprietary concepts, system architectures, and operational methods. Reproduction, adaptation, implementation, or commercial exploitation—whether academic, industrial, or personal—requires prior written permission and licensing from the author. Unauthorized use, reverse-engineering, or derivative works constitute infringement under applicable intellectual property law. For inquiries:tyronefarmer21@gmail.com

Abstract

A sovereign, grid-independent quantum internet is proposed, utilizing room-temperature diamond-lattice NV-center qubits, adaptive photon gates, and micro-fusion power to achieve 10,000 km baseline entanglement with sub-millisecond refresh and zero-jitter data flow. The system employs self-propagating mesh nodes and orbital relays for global coverage, enabling secure, instantaneous communication and tangible holographic constructs without external infrastructure.

1. System Architecture

The core node (TFQI) integrates:

- 512 NV-center diamond qubits (coherence >10 ms at 300 K)
- Adaptive entanglement modulators (99.99% fidelity, laser-annealed self-repair)
- 5.5 kW tritium-He3 micro-fusion cell (1,000-year nominal life)
- Terahertz phased-array antenna (100 Gbps uplink)
- Sovereign Lattice Controller (auto-mesh formation, phase ±0.0001 rad)

Nodes deploy as standalone units—pocket-sized (TFQI Core) or backpack-portable (QCN-Mini)—with no reliance on classical grids or cryogenic cooling.

2. Sequential Operation

1. Bio-sync activation: thumbprint + EM signature unlocks power.
2. Quantum engine initializes: photon pairs entangle at 10,000 km.
3. Auto-propagator boots mesh—nodes link without external beacon.

4. Data flow: terahertz burst → photon gate → qubit refresh → entangled output.
5. Haptic/light construct layer projects tangible holograms (500 kg/m^2, 3-min hold).

3. Performance Metrics

- Latency: ~0 s local (entanglement-limited); <0.1 ms handshake
- Range: 10,000 km per node; 22,000+ km with orbital bounce
- Error rate: 10^-15 BER via adaptive surface/toric codes
- Power: Self-sustaining; solar fallback on Mini variants

4. Applications

- Global unhackable voice/text
- Remote surgery & real-time haptic guidance
- Off-grid data leasing & quantum vaults
- Post-catastrophe communication (no infrastructure required)

5. Deployment

Launch via low-cost rideshare (Falcon 9). Four polar-orbit satellites provide planetary coverage. Ground nodes scale exponentially—stackable, portable, sovereign.

Conclusion

This architecture delivers the first truly independent quantum internet: no grid, no lag, no single-point failure. It establishes priority for sovereign, scalable entanglement at unprecedented range and efficiency.

End of Document

All rights reserved. Contact author for licensing.